

### CLAIMS

1. In a network connected to a printer, a first server and a network terminal, a network terminal authorization protocol for authorizing the printing of a document at the printer at the request of the network terminal, including the steps of:
- 5       creating, at the first server, an authorization record authorizing the network terminal to print at the printer;
- requesting, at the network terminal and via a printing request, printing of the document at the printer;
- verifying, using the authorization record, that the network terminal is authorized
- 10   to print at the printer; and,
- in the event that the verification succeeds, sending the document to the printer for printing.
2. A protocol according to claim 1, where, in the requesting step, the printing request is sent to the first server, and the verifying and sending steps are performed at the
- 15   first server.
3. A protocol according to claim 1, where, in the requesting step, the printing request is sent to a second server and the sending step is performed at the second server;
- 20   the verifying step including the sub-steps of:
- requesting, at the second server and via a verification request sent to the first server, verification; and
- verifying, at the first server and in response to the verification request, that the network terminal is authorized to print at the printer.
- 25   4. A protocol according to claim 2 or claim 3, including the further steps of:
- allocating, at the network terminal, a public/private signature key pair;
- storing, at the network terminal, the private signature key; and

storing, at the first server and as part of the authorization record, the public signature key.

5. A protocol according to claim 4, where the requesting step includes the sub-step of generating a digital signature using the private key and attaching it to the request, and the verification step includes the sub-step of verifying the digital signature attached to the request using the public key.

6. A protocol according to claim 2 or claim 3, where the creating step includes the sub-step of storing, in the authorization record, a printer identifier identifying the printer; the requesting step includes the sub-step of including, in the request, the printer identifier; and the verifying step includes the sub-step of verifying that the authorization record contains the same printer identifier as the request.

7. A protocol according to claim 6, where the creating step includes the sub-steps of: allocating a terminal identifier for the network terminal; storing the terminal identifier in the authorization record; and storing, at the network terminal, the terminal identifier.

8. A protocol according to claim 7, where the authorization record is retrievable by the printer identifier and terminal identifier stored therein.

9. A protocol according to claim 8, including the further steps of:  
submitting, at the printer and to the first server, an authorization identifier request requesting the allocation of an authorization identifier;  
allocating, at the first server, the authorization identifier;  
storing, at the first server, the authorization identifier;  
printing, at the printer, the authorization identifier and the printer identifier;

submitting, at the network terminal and to the first server, an authorization request containing the authorization identifier and the printer identifier;

validating, at the first server, the authorization request; and,

in the event that the validation succeeds, performing the creating step.

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10. A protocol according to claim 9, where the creating step includes the sub-step of recording, at the first server, that the authorization identifier has been used; and the validating step includes the sub-step of rejecting, if the authorization identifier is recorded as having been used, the authorization request.

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11. A protocol according to claim 9, where the step of storing the authorization identifier includes the sub-step of storing expiry information relating to the authorization identifier; and the validating step includes the sub-step of rejecting the authorization request if the expiry information indicates that the authorization request id has expired.

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12. A protocol according to claim 2 or claim 3, where the requesting step includes the sub-step of including, in the printing request, the document.

13. A protocol according to claim 2 or claim 3, where the requesting step includes the sub-step of including, in the printing request, a document identifier of the document.

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14. A protocol according to claim 13, where the sending step includes the sub-step of retrieving the document using the document identifier.

15. A protocol according to claim 14, where the sending step includes the sub-step of formatting the document for printing.

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16. A protocol according to claim 13, where the sending step consists of sending

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e document identifier to the printer.

. A protocol according to claim 1, where the network term  
nning on a computer system.

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